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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,696	03/11/2004	Thomas S. Afferton	Afferton 2003-0075	6182

7590  
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08/23/2007

EXAMINER
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ABDIN, SHAHEDA A

ART UNIT	PAPER NUMBER
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2629

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08/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/798,696	Applicant(s) AFFERTON ET AL.	
	Examiner Shaheda A. Abdin	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Response to Argument**

1. The amendment filed on 04/12/2007 has been entered and considered by examiner.

### ***Claim Objections***

2. Claims 1 - 25 are objected to because of the following informalities: The use of parentheses in claims 1 and 21 are improper because the parentheses uses only for the reference characters (see MPEP 608.01(M)). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 41 – 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Lichtman et al. (US Patent NO: 7,072,584 B1).

(41) Regarding claim 41:

A method for controlling a network (70, in fig. 3) that includes nodes (plurality of nodes 74), and links (east link 82 and west link 84) that interconnect the nodes (74), where a node of said nodes (plurality of nodes), which comprises a traffic element (data traffic) that includes a tunable transceiver (86) that is coupled to at least one local port (e.g. two local ports with the arrows on the left and on the top of block 76, coupler switch) of a controllable (controllable by electronic switch fabrics 72) optical director (coupler switch, 76) that includes at least two non-local ports (ports at Mux 78), executes a process comprising the steps of:

provisioning said controllable optical director (76) to transfer signals of wavelength  $X(\lambda_1)$  that arrive at a first of said non-local ports (78), to local port A (one local port of 76) of said local ports (two local ports) (column 9, lines 40 – 60, Fig. 3),

provisioning said controllable optical director (76) to transfer signals of wavelength  $Y(\lambda_n)$  from local port B (local port from the left side of 76) of said local ports to a second of said non-local ports (ports at 78) (column 9, lines 40 – 60, Fig. 3),

provisioning said tunable transceiver (86) to regenerate information contained in signals of wavelength X ( $\lambda_1$ ) that arrive at said local port A (port at top arrow of 76) (column 9, lines 40 – 60, Fig. 3);

provisioning said tunable transceiver to develop signals at said local port B (port at left arrow at 76) that have wavelength Y and carry substantially the regenerated information (column 9, lines 40 – 60, Fig. 3).

(42) Regarding claim 42:

Where wavelength X and wavelength Y are one and the same wavelength (note that wavelength at one local port of 76 is same as wavelength at another local port are same which is ( $\lambda_1$ ) (see Fig. 3).

(43) Regarding claim 43:

Where wavelength X and wavelength Y are different from each other (note that wave lengths are varies in port to port e.g. ports at 78 different kinds of wavelength arrived i.e. ( $\lambda_1$ ) and ( $\lambda_n$ ) which is different from each other) (see Fig. 3)

(44) Regarding claim 44:

Where said local port A and said local port B are one and the same local port (column 9, lines 45-50, fig. 2 and 3).

(45) Regarding claim 45:

Where said local port A and said local port B are different from each other (column 9, lines 45 - 50, fig. 2 and 3).

**Claim Rejections - 35 USC § 103**

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-15, 18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Way et al. (US Pub. No: 20060275034 A9) in view of Liu et al. (US Pub. No: 2002/0149820 A1).

(1) Regarding claim 1:

Way teaches in fig. 6A, a network arrangement comprising nodes (plurality of network nodes 516) and optical links (514,512) interconnecting the nodes, characterized in that at least one node comprises.

a transceiver pool (transponder, 528) , that includes a plurality of at least two transceivers (O-E-O, (i.e. TX530, RX532) and (O-E-O (i.e. TX 536, RX 534)) with corresponding customer-side connection points (e.g. client side connection points 532, 536) , and at least two optical director-side connection points (e.g. line side connection points 530, 534) that are each adapted to output an optical signal (e.g. optical signal 'o') at a particular wavelength (signal  $\lambda$  1).

an optical director element (e.g. 556) having local input ports (input ports, 574, 576), each connected to a different one of said ODS connection points (e.g. 574 is connecting to line side TX 530, 576 is connecting to line side RX 534), and at least two other ports (580, 578), with said director element adapted to add a signal applied to one of said local input ports by a connected ODS connection point, which is at said particular wavelength (signal  $\lambda 1$ ), to a specific one of the other ports (580), via all optical paths (514 and 512), pursuant to a control signal (converted signal O-E-O) applied to the optical director element (556), without affecting signals of other wavelengths that are applied by the optical director element (556) to said specific one of the other ports (note that wavelength  $\lambda 1$  is applied to the optical director element (i.e. switch 556) without any change of indication affected by other wavelength (e.g.  $\lambda 2$ ) which is considered as unaffected signal, also see 0071-0076).

Way discloses the subject matter above but does not specifically disclose the electrical control signal.

However, Liu in the same field of endeavor discloses electrical control signal ([0066], [0142], Fig. 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of an electrical control signal as taught by Liu into the networking system of Way so that an electrical control signal can be applied to said transceiver pool. In this configuration the system would have efficient and flexible architecture of switching data transmission in the network (Liu, [0014]).

(2) Regarding claim 2:

way teaches each of said links (514, 512) interconnects a pair of nodes (516) and comprise a series connection of at least one optical cable (512 and 514) that contains at least one optical fiber( [0071], and fig. 6A).

(3) Regarding claim 3:

Way teaches said optical director forms a communication channel between one or more of said ODS connection points (coupler, 36) and output ports (40 and 42) of said optical director that are not connected to said ODS connection points ([0048], lines 1-4, fig. 1a).

(4) Regarding claim 4:

Where the number of said CS connection points is equal to number of said ODS connection points (note that CS connection points equal to ODS connection points because of the transponder, at the same time one side is connected to customer side and the other side is connected to the director side)

(5) Regarding claim 5:

Where each transceiver in said transceiver pool is adapted to deliver to said CS connection points an optical signal that is suitable for long-reach optical transmission (Note that a working WDM transponder 528 is coupled to the ring 510; working WDM 528 corresponding client side and line side, which is connected back to back receiver and transmitter of the equipment; this arrangement indicating nothing but a long reach optical transmission, also see [0072], [0073] .



(6) Regarding claim 6:

Way teaches each transceiver (transceiver in 528) in said transceiver pool is connected to one of said CS connection points (client side receiver 532), and to one of said ODS connection points (line side transmitter, 530) ([0071])

(7) Regarding claim 7:

Way further teaches a service layer device (GBE) that interposed between customer signals (signal from client) and CS connection points (client side connection points 532, 536) (note that GBE considered as a service layer device which is shown in Fig. 1A and fig. 6A).

(8) Regarding claim 8:

Way teaches transceiver pool (transponder, 528) is part of a service layer device ([0072], lines, 5-10, fig. 6a).

(9) Regarding claim 9:

Way teaches said service layer device (GBE) performs a routing (e.g. in Fig. 1A, GBE/ IP router), or a multiplexing function (note that only in Fig. 1 discloses that GBE could be IP router therefore, (GBE) in Fig. 1 considered as an example of service layer device) also see Fig. 6A).

(10) Regarding claim 10:

Way teaches a transceiver element (536) in said pool (528) is adapted to transfer information contained in a signal at a CS connection point to a signal of a

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particular wavelength ( $\lambda$  1) at an ODS connection point (534) ([0073], lines 4-8, and fig. 6a).

(11) Regarding claim 11:

Way teaches the signal at its associated CS connection point is electrical (note that the transponder 528 has signal at it's joint CS (i.e. client side connection points 536 is electrical (i.e. electrical signal converted to electrical which is in part of O-E-O in the reference , see Fig. 6A)

(12) Regarding claim 12:

Way teaches the signal at its associated CS connection point is optical ([0080] (note that in Fig. 6A, transponder 528 using transceiver (O-E-O) element 536 which is associated with client side point and carrying optical signal, also see lines 6-11, fig. 9c).

(13) Regarding claim 13:

Way teaches a transceiver element (536) in said pool (528) is adapted to transfer information to a CS connection point that is contained in a signal of a particular wavelength ( $\lambda$  1) appearing at one of said local input ports (574) (see Fig. 6A)

(14) Regarding claim 14:

Claim 14 is same as Claim (11) see the discussion in claim 11.

(15) Regarding claim 15:

Way teaches said optical director comprises a switch (560) connected to local input ports (574, 572, 570 ) ; and an optical routing element (520) connected to said switch (560) and said other ports (578, 576) (see, fig. 6A)

(18) Regarding claim 18:

Way teaches control signal flows the nodes of said net work but Way does not specifically teach in-band control signals.

However, Liu in the same field of endeavor teaches in-band control signals ([0055], [0139 -0143], Fig. 32 and 33).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of in-band control signal as taught by Liu into the networking system of Way so that in-band control signals could be flow through said network to provision nodes of said network. In this configuration the system would have efficient and flexible architecture of switching data transmission in the network (Liu, [0014]).

(19) Regarding claim 19:

Liu teaches out – band control signals, that flow through the network to provision nodes of the network (([0055], [0139 -0143], Fig. 4).

13. Claims 16-17, 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Way et al. in view of Gumaste et al. (US Pub. No: 2004/0208560 A1).

(16) Regarding claim 16:

Note the discussion of Way above.

Way teaches a control signal but does not teach the management network.

However, Gumaste in the same field of endeavor teaches management network

(NMS 44) ([0025], Fig. 1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a management network system (NMS 44) as taught by Gumaste into the network system of Way so that management network can be communicating said control signal. In this configuration the system would be proving an improved method for routing an wavelength assignment with minimizing the various cost functions involved as well as the processing and assignment time needed (Gumaste, [0009]).

(17) Regarding claim 17:

Gumaste teaches Where the management network is distinct from said network (note that management network (NMS 44) is operable to communicate with various network components (various node) and to provide control signals to the various network components [0025] meanwhile said net work is communicating with the adjacent nodes.

(20) Regarding claim 20:

Way teaches said transceiver (528) pool is embedded in said optical director (line side transmitter, 530) (Fig. 6A).

(21) Regarding claim 21:

Way teaches a method for provisioning capacity in a network where nodes (plurality of nodes 516) are interconnected with optical links (514, 512) comprising the steps of:

at a first node (516) of said nodes (plurality of nodes 516);

tuning (tuning by tunable optical filter, see [0013]) a first transceiver pool (528) to deliver an information-bearing signal (e.g.  $\lambda_1$ ) at one of N optical director side (ODS) connection points (534, 530) associated with said first transceiver pool (local ports) (528), where N is a non-zero integer greater than one (e.g. two optical connection points 534, 530), and to accept an information-bearing signal ( $\lambda_1$ ) from said corresponding ODS connection point (534), where said information-bearing signal ( $\lambda_2$ ) that is delivered by said first transceiver pool (528) is at a wavelength ( $\lambda_1$ ), and information in said information-bearing signal ( $\lambda_1$ ) delivered by said transceiver pool (528) is substantially the same as information provided to said transceiver pool (528) from a customer side (CS) connection point (client side connection point 536) (see Fig. 6A)

directing a first optical director (556) having at least N+2 ports (4 ports, i.e. 574, 570, 572, 578, 576) with said N ODS connection points (line side connection points, 534 and 530) associated with said first transceiver pool (528) (e.g. 576 is associated with point 534 and 574 is associated with point 530), and remaining ports (570, 572) being coupled to selected ones of said optical links (long-reach ports) (512, 514) (e.g. port 570 is connected to optical link 512 and port 572 is connected to optical link 514), to route signals arriving at said N ODS connection points (530 and 534) to specific ports (e.g. 570, 572) of said first optical director (556) (see Fig. 6A).

Way discloses all of the subject matter as describe above but Way fails to discloses specifically a control signal.

However, Liu in the same field of endeavor discloses a control signal (electrical control signal) ([0066], [0142], Fig. 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of a control signal (an electrical control signal) as taught by Liu into the networking system of Way so that an electrical control signal can be applied to the nodes and transceiver pool for directing an optical director by the control signal. In this configuration the system would have efficient and flexible architecture of switching data transmission in the network (Liu, [0014]).

(22) Regarding claim 22:

Claim 22 is same as claim 5, only the different is claim 22 is a metho claim and claim 5 is an apparatus claim.

(23) Regarding claim 23:

Way teaches where said directing (directing a first optical director (556) of routing to specific ports (570, 572) of said optical director is limited to routing to said long-reach ports (e.g. ports 570 is limited to link 512 and port 572 is limited to link 514) (see [0048] and Fig. 6A).

(24) Regarding claim 24:

Liu teaches said control signals are unrelated to a failure indication (note that the control signal is provided only for controlling the network element which is unrelated to a failure indication ([0066], [0142], Fig. 4).

(25) Regarding claim 25:

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Way teaches that at another node (516) of said network (net work in Fig. 6A) (note that another node 516 is considered i.e. plurality of nodes pertaining to set (P 1 W) on the left of Fig. 6A ) ),

Liu teaches receiving control signals (electrical control signal) ([0066], [0142], Fig. 4).

Liu teaches responsive to said control signals ([0066], [0142], Fig. 4).

Way teaches directing a second optical director (pair of switch with ( $\lambda 1$ ) and ( $\lambda 1$ ) filtered) that has M ODS connection points (points at O-E-O with  $\lambda 1$ ) and at least 2 ports (i.e. 1st port and 2<sup>nd</sup> ports at switch in W), where M is a non-zero integer (i.e. 2) to route signals arriving at one of said ports (e.g. 1<sup>st</sup> port) to one of said M ODS connection points (e.g. point at O-E-O which has ( $\lambda 1$ ) filtered ), (Fig. 6A)

tuning a second transceiver pool (O-E-O with ( $\lambda 2$  Filtered ) to accept an information-bearing signal ( $\lambda 2$ ) at one of said M ODS connection points (points at O-E-O with  $\lambda 1$  ) for delivery to one of a plurality of CS connection points (GBE, i.e. the client side connection point associated with said second transceiver pool (O-E-O with  $\lambda 2$  Filtered ) (Fig. 6A).

(26) Regarding claim 26:

Way teaches a method for a network that includes nodes (plurality of nodes 516), and links (512 and 514) that interconnect the nodes (plurality of nodes), where a first node (516) of the nodes executes a process comprising the steps of:

provisioning a tunable transceiver (O-E-O) (note that transceiver (O-E-O) tuning by tunable optical filter, see [0013])) of said first node (516) to communicate substantially all of the information of an applied customer signal to a first local connection point (532) that is coupled to a first optical director (556) of said first node (516), which information is modulated onto a wavelength ( $\lambda_1$ ) specified to said tunable transceiver;

provisioning said first controllable optical director (556) to transfer signals at said first local connection point (532) that have said specified wavelength ( $\lambda_1$ ) to a port of said first optical director (556) that is specified by a applied to said first optical director (556), said transfer being via essentially all-optical communication paths (512, 514) within said first optical director (556) (see 0071-0076).

Way discloses the subject matter above but does not specifically disclose the control signal and control signal is other than indicative of a failure condition.

However, Liu in the same field of endeavor discloses control signal (electrical control signal) and control signal is other than indicative of a failure condition (note that Liu does not state that control signal is applied to indicate failure condition) ([0066], [0142], Fig. 4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of a control signal as taught by Liu into



the networking system of Way so that the optical director can be operable by the control signal which control signal is other than indicative of a failure condition. In this configuration the system would have efficient and flexible architecture of switching data transmission in the network (Liu, [0014]).

(27) Regarding claim 27:

Way teaches the communication paths (optical links 514, 512) of the optical director (556) are all-optical (see [0071], Fig. 6A).

(28) Regarding claim 28:

Way teaches the port (572) selected for said controllable optical director (556) is connected to a link (512) that is coupled (coupled by coupler at w) to a port (port at w) of a second node (516, plurality of nodes pertaining to set (P 1 W) on the left of Fig. 6A) of said nodes (plurality of nodes 516), where said second node (516) executes a process comprising the steps of:

provisioning a second optical director (pair of switch with ( $\lambda_1$ )) to transfer signals (optical signals) that appear at said port (port at w) of said second node (516) and have said wavelength ( $\lambda_1$ ) to a local connection point (connection point at O-E-O) of said second node (516), said transfer being effected via essentially all-optical paths (512) in said second director (see Fig. 6A, on the left side for node 516);

provisioning a tunable transceiver (O-E-O) of said second node (516) to form an output signal (converted optical signal i.e. O-E-O) from a signal that appears at said local connection point (connection point at O-E-O) of said second node (516) and at said wavelength ( $\lambda_1$ ) (Fig. 6A).

(29) Regarding claim 29:

Way teaches the second optical director transfers signals via an all-optical path (512) (see 0071-0076).

14. Claims 30-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Way et al. in view of Liu et al. as shown in claim 26 and further in view of Okanoya et al.

(1) Regarding claim 30:

Note the discussion above in claim 26.

Way as modified by Liu do not teach the control signals are applied to the first node in response to a request for provisioning.

However, Okanoya teaches the control signals (signal from controller 100) are applied to the first node (10) in response to a request for provisioning (column 6, lines 58-67, column 7, lines 1-8).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a method of control signal as taught by Okanoya into the networking system of Way as modified by Liu so that the control signal can be applied to the first node in response to a request for provisioning. In this configuration the system would have a high reliability and optimized utilization of resources in the data transmission (Okanoya, column 2, lines 31-31).

(2) Regarding claim 31:

Okanoya teaches the request is initiated by an element (11) of the node (10) (column 7, lines 1-8).

(3) Regarding claim 32:

Okanoya teaches where the request is initiated by a customer (user) (column 6, lines 25-44).

(4) Regarding claim 33:

where the request arrives from another node (e.g. terminal 63) (column 6, lines 58-67, column 7, lines 1-8).

(5) Regarding claim 34:

Okanoya teaches the request arrives from an administrator (100, communication controller centralized management, see column 6, lines 34-44) that has direct control over provisioning of the node (10) (column 6, lines 58-67, column 7, lines 1-8, Fig. 3).

(6) Regarding claim 35:

Okanoya teaches the request arrives from an entity (e.g. network address #A) that has management control (control from controller 100) over the network (column 6, lines 58-67, column 7, lines 1-8, Fig. 3).

(7) Regarding claim 36:

Where the request arrives from said entity (#A) pursuant to a process that rearranges provisioning in the network (column 6, lines 58-67, column 7, lines 1-8).

(8) Regarding claim 37:

Okanoya teaches the rearranging (distribution by processor 112) of provisioning is in response to a request by a customer (user) to provide a modified capacity allocation (column 6, lines 58-67, column 7, lines 1-8).

(9) Regarding claim 38:

Okanoya teaches the rearranging (distribution) of provisioning is in response to changes in network load conditions (column 6, lines 58-67).

(10) Regarding claim 39:

Okanoya teaches the changes in network load conditions arise from network faults (column 18, lines 3265, Fig. 27 and 28) (note that Fig. 3. is illustrated distribution of load sharing; and Fig. 27 and 28 are discussed about load sharing with fault functionality).

(11) Regarding claim 40:

Okanoya teaches the control signals (control signals from controller 100) are applied in response to a fault condition detected in the network (column 18, lines 66-67, column 19, lines 1-11).

### ***Response to Arguments***

15. Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the references (Okanoya et al. (US-6128667 A), Liu et al. (US- 6128657 A), Albert et al. (US- 6549516 B1) and Gumaste et al. (US- 2004/0208560 A1) are added for the new ground of rejection.

### Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Guild et al. (US- 2003/0152072 A1) provides an optical routing device for wavelength division multiplexed (WDM) optical signals includes an optical input stage, an optical output stage, and an optical routing stage for coupling optical signals to the optical output stage.

Albert et al. (Us- 6549516 B1) provides a system and method for providing instructions for forwarding packets.

**Inquiry**

18. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen, can be reached at (571) 272-7772.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

**Any response to this action should be mailed to:**

Commissioner of patents and trademarks  
Washington, D.C. 20231

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